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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

Federal Communications Commission
Office of Secretary

In the Matter of)
)
Amendment of Parts 2, 25 and 97) ET Docket No. 98-142
of the Commission's Rules with)
Regard to the Mobile-Satellite)
Service Above 1 GHz)

**COMMENTS OF
CONSTELLATION COMMUNICATIONS, INC.**

Constellation Communications, Inc. ("Constellation"), by counsel, hereby submits its comments in the above-captioned proceeding.

BACKGROUND

Constellation is currently implementing a Big LEO system pursuant to license issued by the Commission on July 1, 1997.¹ A vital part of the success of the Constellation system is the ability to access sufficient feeder link spectrum. In its license order Constellation was authorized to construct a Big LEO system with feeder links in 6875-7025 MHz band (space-to-Earth) and the 5091-5250 MHz band (Earth-to-space).² It therefore has a keen interest in the outcome of this proceeding. In these comments, Constellation supports the Commission's proposals to allocate the 5091-5250 MHz, 6700-7075 MHz and 15.43-15.63 GHz bands for Big LEO feeder links.

¹ See Constellation Communications, Inc., DA 97-1366, released July 1, 1997.

² *Id.* at ¶ 24.

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On August 4, 1998, the Commission released a Notice of Proposed Rulemaking ("Notice") to allocate certain frequency bands for Big LEO feeder links.³ Specifically, the Commission proposed to amend Part 2 of the Commission's Rules by allocating the 5091-5250 MHz and 15.43-15.63 GHz bands to the fixed-satellite service ("FSS") on a co-primary basis for Earth-to-space transmissions and the 6700-7075 MHz and 15.43-15.63 GHz bands on a co-primary basis for space-to-Earth transmissions. The Commission also proposed to add these frequencies to the list of frequencies available for use by the Satellite Communications Service and limit the use of these allocations to Big LEO feeder links. Finally, the Commission proposed to implement the clarification concerning maximum power flux density ("PFD") adopted at WRC-97 for Big LEO uplinks. As discussed below, Constellation urges the Commission to expeditiously adopt the proposals made by the Commission in the Notice.

DISCUSSION

Constellation endorses the Commission's proposals to amend Parts 2 and 25 of its rules to implement the allocation of the 5091-5250 MHz, 6700-7075 MHz and 15.43-15.63 GHz bands for Mobile Satellite Service ("MSS") Above 1 GHz feeder links. Such allocations are essential to the development of the new Big LEO systems, such as the system that Constellation is building in the 1.6/2.4 GHz MSS bands and has proposed in the 2 GHz MSS bands. All three of these feeder link bands are required for these systems. However, the Commission's Notice raises some issues which Constellation believes should be clarified in amending the rules.

³

See Amendment of Parts 2, 25 and 97 of the Commission's Rules with Regard to the Mobile-Satellite Above 1 GHz, Notice of Proposed Rulemaking, ET Docket No. 98-142, FCC 98-177, released August 4, 1998.

First, the proposed addition of footnote G126 in paragraph 17 of the Notice to permit the authorization of Differential-Global-Positioning-System ("DGPS") stations on a co-primary basis in the 5000-5150 MHz band raises issues as to the potential obligations of feeder link earth stations to protect DGPS stations in the 5091-5150 MHz portion of the band. The Notice is silent about the number, location and technical characteristics of such stations and any procedures for the authorization of DGPS stations. While procedures are being developed to determine whether coordination is required between feeder link earth stations and microwave landing systems ("MLS"), it is not clear whether such procedures will be sufficient to protect DGPS stations located at MLS-equipped airports, or whether DGPS stations can be authorized at non-MLS-equipped locations which may inhibit the placement or operation of MSS feeder link earth stations. Absent such information and clarification on the characteristics and procedures for coordination of DGPS stations, Constellation recommends that G126 be modified to authorize DGPS stations on a primary basis only in the 5000-5091 MHz band.

Second, with respect to the questions posed by the Commission in paragraph 22 of the Notice concerning the 6700-7075 MHz band, Constellation does not anticipate that its system will require a large number of gateway earth stations. Gateway earth stations are relatively large, costly facilities. Constellation plans to locate its gateway earth stations in rural areas far from large commercial airports, but close to a major backbone transmission system for interconnection with the public switched telephone network ("PSTN"). A final determination as to the precise number of feeder link earth stations Constellation requires within the continental United States is currently being made. The decision depends on coverage requirements and the technical and economic optimization of backhaul connections with the PSTN. However, the number of Constellation gateways will be small

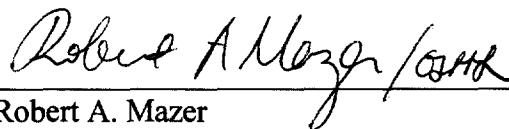
and the Commission's assumption of approximately six feeder link earth stations within the continental United States is reasonable. As a result, Constellation believes that it will be feasible to identify and coordinate such a small number of sites scattered widely across the country so that the impact on terrestrial services will be minimal.

Finally, paragraphs 32 through 36 of the Notice deal with service link coordination issues. Constellation supports these proposals. In adopting the power flux density ("PFD") limits in the 2483.5-2500 MHz band proposed in paragraph 36, the Commission should note that coordination between MSS Above 1 GHz systems in this band using code division multiple access will also be based on PFD limits agreed to by the MSS Above 1 GHz system operators. However, Constellation believes that the values for such inter-system PFD coordination levels are likely to be different from those specified in paragraph 36.

CONCLUSION

For the reasons discussed above, Constellation supports the proposal to allocate spectrum for Big LEO feeder links.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Robert A. Mazer" followed by a stylized flourish or initials.

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Dated: September 21, 1998

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 21st day of September, 1998, a true and correct copy of the foregoing Comments of Constellation Communications, Inc. of Constellation Communications, Inc. was served by first class mail, postage prepaid, upon the following:

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